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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,770	08/06/2003	Shigeo Ohashi	500.40473CX1	6841
20457	7590	07/28/2005	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			CHANG, YEAN HSI	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/634,770

Applicant(s)

OHASHI ET AL.

Examiner

Yean-Hsi Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/7/05 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al. (US 5,764,483).

Ohashi teaches an electronic apparatus (fig. 1) comprising: a first housing (10, fig. 1) having a plural number of electronic parts (shown in fig. 1), a second housing (10', fig. 1) having a display device (8, fig. 1), a keyboard (4, fig. 1), a heat-receiving member (14, fig. 1) being thermally connected with at least one heat generating element (12, fig. 1) in said electronic parts, and having a flow passage (shown in fig. 2, not

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labeled) therein, a heat-dissipating member (16, fig. 1) for dissipating heat from said heat-receiving member into outside air by being disposed on a wall of one of said first housing and second housing and having a flow passage (36, fig. 4) therein, a tube (18) for connecting said heat-receiving member and said heat-dissipating member (shown in fig. 4), and liquid moving means (40, fig. 4) for circulating liquid between said heat-receiving member and said heat-dissipating member (fig. 4), wherein said heat-dissipating member has said flow passage thereof disposed over a substantial area of a heat-dissipating wall surface (shown in fig. 1, not labeled) of the one (second housing 10') of said first housing and said second housing so as to dissipate heat substantially uniformly over said heat-dissipating wall surface on which said heat-dissipating member is disposed (fig. 1), and wherein said flow passage of said heat-dissipating member is configured to have a predetermined length (claims 25 and 30).

Ohashi fails to specify the length of said heat-dissipating member being configured to have a length within a predetermined range per unit area of said heat-dissipating wall surface of about 1.1 – 1.7m per 0.1m<sup>2</sup> unit area of said heat-dissipating wall surface (claims 25 and 26), an inner diameter of said flow passage length of said heat-dissipating member is no greater than 1.5mm (claim 27), and said liquid-moving means provides the liquid circulating flow rate of at least 120 $\mu$ L/sec, not more than 1200  $\mu$ L/sec (claims 28-29).

Regarding the length and inner diameter of flow passage, It would have been obvious to one having ordinary skill in the art at the time the invention was made to specifically make the flow passage of the heat-dissipating member having a length

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within a predetermined range per unit area of said heat-dissipating wall surface of about 1.1 – 1.7m per 0.1m<sup>2</sup> unit area of said heat-dissipating wall surface, and an inner diameter of no greater than 1.5mm for providing efficient heat-dissipation, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. See MPEP §2144.04, IV A.

Regarding the liquid circulating flow rate provided by the liquid-moving means, It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a liquid-moving means off the shelf for the device of Ohashi with the liquid-moving means being able to provide a liquid circulating flow rate of at least 120μL/sec, not more than 1200μL/sec, since it has been held that a claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 6, 9 and 14 have been considered but are moot, since all claims have been canceled.

### ***Correspondence***


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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (571) 272-2038. The examiner can normally be reached on 07:30 - 16:00, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the Art Unit phone number is (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8558.

Yean-Hsi Chang  
Primary Examiner  
Art Unit: 2835  
July 22, 2005



**YEAN-HSI CHANG**  
**PRIMARY EXAMINER**